



@physicaltherapyresearch

RAPID RESEARCH

June 2021

Inside This Week: Injections for Pain Relief

-
- ✓ Oxygen-Ozone Injections for Knee Osteoarthritis

 - ✓ Platelet-Rich Plasma Injections for Muscle & Joint Injuries

 - ✓ Shoulder Corticosteroid Injection after Rotator Cuff Surgery



OXYGEN-OZONE INJECTIONS FOR KNEE OSTEOARTHRITIS

This study systematically reviewed research in the past 20 years, covering ozone intra-articular injection for the treatment of Knee Osteoarthritis to investigate the therapeutic potential and compare it with other conservative treatments.



KEY FINDINGS

11 studies & 858 patients (629 female and 229 male).

Majority of studies were of poor quality.

No major complications or serious adverse events were reported.

Encouraging pain relief at short-term.

Encouraging pain relief mid-term.

On the basis of the available data, no clear indication emerged from the comparison with other established treatments for Knee OA.

MAIN TAKEAWAYS

Available research is of poor methodological quality.

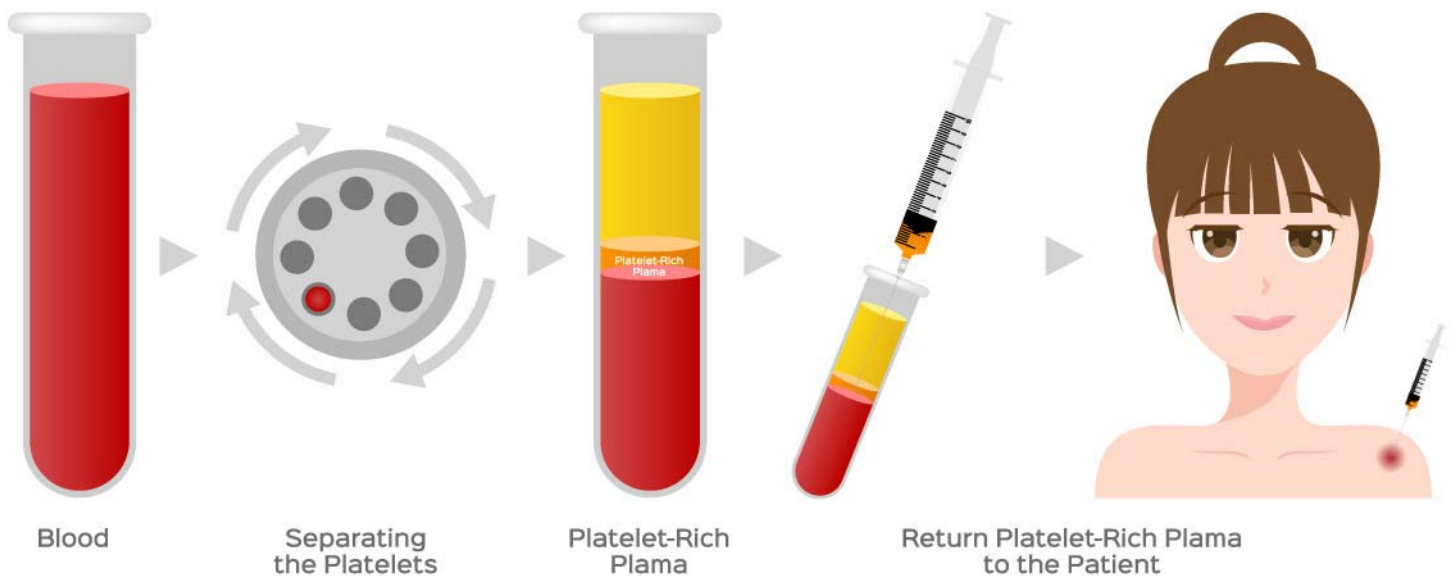
Most studies flawed by relevant bias.

On the basis of the data available, Oxygen-Ozone injections can be a safe approach.

There is encouraging pain control and functional recovery in the short/middle term.

PLATELET-RICH PLASMA INJECTIONS FOR MUSCLE & JOINT INJURIES

This research evaluated the use of platelet-rich plasma (PRP), including leukocyte rich PRP (LR-PRP) and leukocyte-poor PRP (LP-PRP), in order to develop evidence-based recommendations for various musculoskeletal indications.



KEY FINDINGS

Abundant **high-quality evidence supports** the use of:
Leukocyte Rich PRP injection for lateral epicondylitis (Tennis Elbow)
Leukocyte Poor-PRP for osteoarthritis of the knee.

Moderate high-quality evidence supports the use of:
Leukocyte Rich PRP for patellar tendinopathy
PRP for plantar fasciitis and ACL patellar tendon graft site.

There is **insufficient evidence to routinely recommend PRP** for:
Rotator cuff tendinopathy, Osteoarthritis of the hip, & High ankle sprains.

Current evidence demonstrates a **lack of efficacy of PRP for**:
Achilles tendinopathy, Muscle injuries, Acute fracture or nonunion
Surgical augmentation in rotator cuff repair, Achilles tendon repair, and
ACL reconstruction.

MAIN TAKEAWAYS

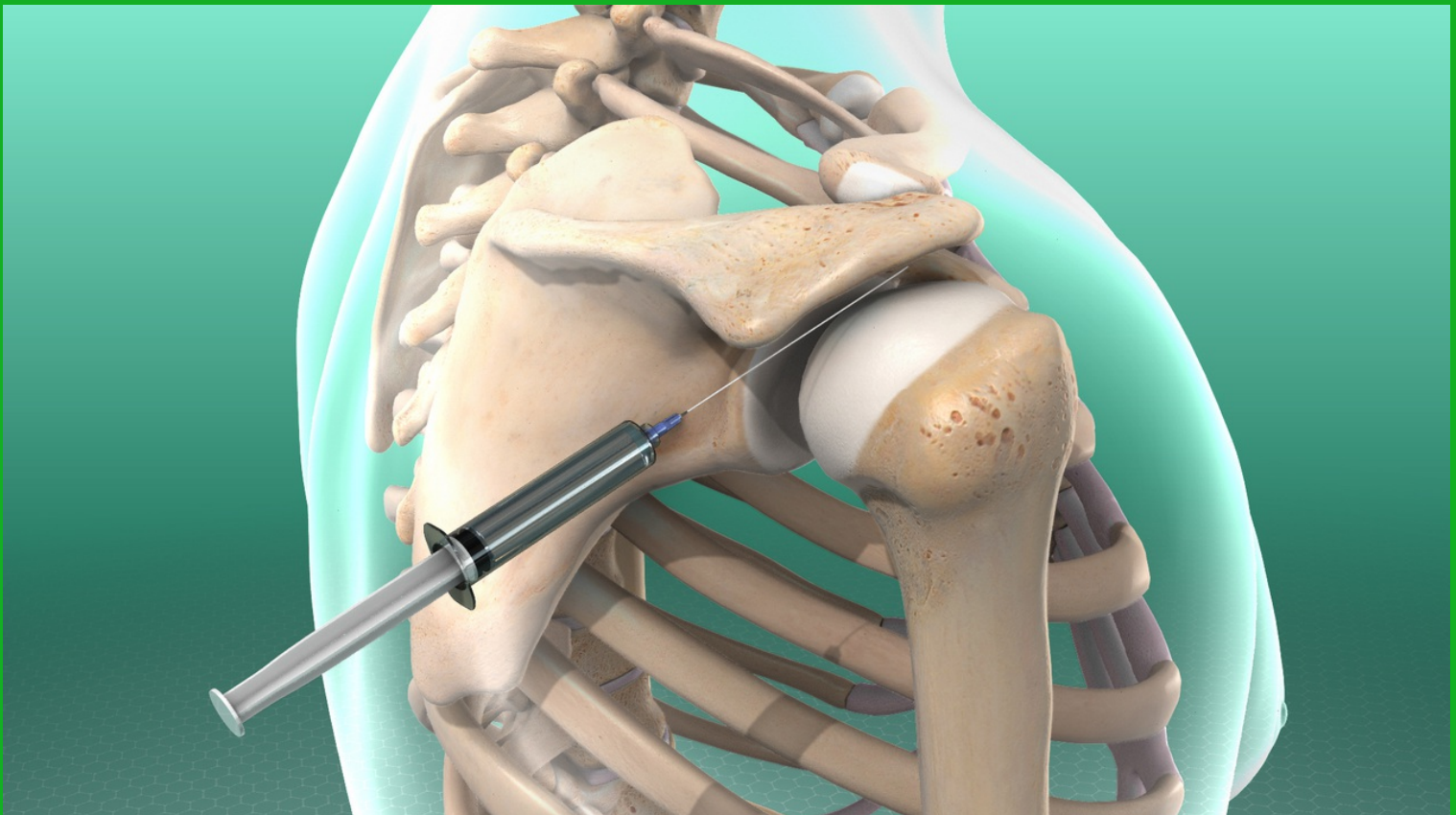
PRP **may be beneficial** for some musculoskeletal pathology.

However, evidence shows **high variability in efficacy**, depending on the specific indication.

Additional high-quality clinical trials with longer follow-up will be critical in shaping the perspective of this treatment option.

SHOULDER CORTICOSTEROID INJECTION AFTER ROTATOR CUFF SURGERY

This research determined the effectiveness and safety of a subacromial corticosteroid injection for persistent pain control & analyzed the factors causing persistent pain after arthroscopic rotator cuff repair.



In patients with an injection, the average pain (VAS) score was 7.7 at time of injection.

This significantly decreased to 2.3 at the end of the first month after the injection, demonstrating a **70.2% reduction in pain**.

At 3 months after the injection, the average VAS **score was 1.2**.

Functional outcomes at final follow-up showed **no significant differences** between patients with and without an injection

Patients with an injection showed **no significant increase in the re-tear rate**.

According to the tear pattern, L-shaped rotator cuff tears (41.8%) showed a higher occurrence of severe postoperative persistent pain.

Preoperative shoulder stiffness was a **predisposing factor for persistent pain**.

MAIN TAKEAWAYS

~16% of patients who underwent arthroscopic rotator cuff repair complained of persistent severe pain during recovery or after rehabilitation exercises.

A higher rate of postoperative persistent pain was shown in patients with L-shaped rotator cuff tears compared with other tear patterns.

An ultrasound-guided subacromial corticosteroid injection after the early phases of tendon healing relieved postoperative persistent pain effectively without adverse effects.

Subacromial corticosteroid injection can be a useful and safe pain control modality during recovery after arthroscopic rotator cuff repair.

GIVE US YOUR FEEDBACK!

MEMBERS

We are on a mission to make research more accessible, easier to interpret, and quicker to implement.

Help us by giving 1 minute of your time to leave feedback for us.

We would greatly appreciate any feedback you have, as it helps us continually improve!

[Leave Review](#)

